



भारतीय प्रौद्योगिकी संस्थान इंदौर

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IIT Indore

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Advertisement for Junior Research Fellow (JRF)

Applications are invited from motivated and eligible candidates for junior research fellow (JRF) position in the research project (*Project No: ARDB/MM/4095/2145*) supported by AR&DB, Defence Research and Development Organization - DRDO, Ministry of Defense, Government of India. The details of the project are given below:

Position	Junior Research Fellow (JRF)
Number of Position (s)	2 (Two)
Title of The Project	Development of single-phase BCC refractory high entropy alloys for high temperature applications using machine learning (ML) and experimental approaches
Principal Investigator	Dr. Sumanta Samal Associate Professor Department of Metallurgical Engineering and Materials Science (MEMS), IIT Indore
Tenure of Project	Maximum 3 years or till end of the project, whichever is earlier
Job Description	Low-density single-phase BCC refractory HEAs (RHEAs) will be designed by machine learning (ML) and thermodynamic simulation techniques. The phase evolution, mechanical properties at high temperature, corrosion and oxidation behaviour of BCC RHEAs at different processing conditions will be studied. The detailed characterization will be carried out using OM, SEM, EPMA, TEM, TG-DTA and APT etc. and processing-structure-property correlation chart of BCC RHEAs will be developed.
Essential Qualification	M. Tech. / ME in Metallurgical and Materials Engineering/ Mechanical Engineering/ Materials Engineering/ Nanoscience and Engineering/ Nanotechnology/ Production Engineering/ Manufacturing Engineering/ or equivalent (with first division as defined by the awarding Institute / University); or Master degree in physics/chemistry (with first division as defined by the awarding Institute /University). Candidates who have qualified NET/ GATE will be given preference.
Desirable Qualification	Knowledge and experience in Physical Metallurgy, Mechanical Metallurgy, Materials Characterization and Basic Electrochemistry.
Fellowship	Rs. 37,000 per month (for first two years) + HRA as per institute rules Rs. 42,000/- per month (for third year) + HRA as per institute rules
Admission to PhD Program	Candidates may also be considered for admission to the Ph.D. program under FA category depending upon the eligibility criteria given by the Department of MEMS, IIT Indore.
Last Date & Time	Interested candidates are requested to send detailed Bio-data, statement of purpose (SOP) and copies of educational qualifications, and other relevant documents to the Principal Investigator by Email (sumanta@iiti.ac.in) on or before October 21, 2024, 5:00 PM.

Only shortlisted candidates will be informed about the date of the interview by email. The appointment is purely temporary and co-terminus with the project. Mere possession of minimum qualification does not guarantee an invitation to the interview. Candidates will be shortlisted based on their merit and as per the requirement of the project. Google meet link will be shared only with the shortlisted candidates before the date of the interview.